

PROCEEDINGS
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AMPHERASTER ALAMINOS, A NEW SPECIES OF
THE FAMILY ASTERIIDAE (ECHINODERMATA:
ASTEROIDEA) FROM THE GULF OF MEXICO

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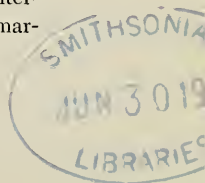
Among the seastars collected by the Texas A & M University R/V *Alaminos* are 13 specimens of a new species of the genus *Ampheraster* Fisher, 1923. Dr. Willis Pequegnat has been conducting a survey of the deepwater fauna of the Gulf of Mexico for several years, and I am grateful to him for the opportunity to examine the interesting asteroid fauna of this area. I also thank Dr. David L. Pawson, of the U.S. National Museum of Natural History, for reading and commenting on the manuscript.

W. K. Fisher, in 1923, revised the then known genera in the family Asteriidae and provided a very efficient key. In 1928, he provided a key to the five known species of *Ampheraster*; the new species described here, *A. alaminos*, is distinct in having six arms. All of the species previously assigned to this genus by Fisher (1928) are from the Eastern Pacific; *A. alaminos* is the first to be reported from the Atlantic. It seems to be most closely related to *A. hyperoncus* (Clark) from Lower California, but differs strikingly from this and other species in the genus in several important respects, as will be seen from the description below.

Family Asteriidae Gray, 1840

Genus *Ampheraster* Fisher, 1923

Straight pedicellariae unguiculate, no accessory inferomarginal spinelet, adambulacral plates predominantly monacanthid, two enlarged interbrachial superomarginal plates overlapping two corresponding inferomar-



ginal plates, and superomarginals three- or four-lobed. The inferomarginal spines are prominent, conspicuously larger than the superomarginal spines; the first pair of postoral adambulacral plates are narrowly separated or touch only at their adoral corners. The rays are five or six in number, and the species are not fissiparous.

***Ampheraster alaminos* new species**

Etymology: The specific name is for the Texas A & M University R/V *Alaminos*, which collected most of the specimens.

Material examined: Holotype (USNM E11397), *Alaminos* Station 3C/68-A-7, 27°42.2'N, 87°44.5'W, 1500 fms, July 1968. Major radius (R)—62 mm, minor radius (r)—8 mm; Rr—1:7.

Paratypes: One specimen, plus 44 arms, 1 disc, *Alaminos* Station 4E/68-A-7, 25°23.8'N, 86°06.7'W, 1750 fms, July 1968. R—47 mm, r—4 mm; Rr—1:11. Nine specimens, *Alaminos* Station 4A/68-A-7, 25°26.6'N, 86°06'W, 1750 fms, July 1968. R—42 mm, r—4 mm; Rr—1:10. One specimen, *Oregon* Station 2574, 26°34'N, 89°53'W, 1450 fms, July 1959. R—50 mm, r—5 mm; Rr—1:10.

Description: This species has six arms, whereas other species in the genus are regularly five-armed. The skeleton is weaker and more irregular than that of *A. hyperoncus*, and the arms are very weakly attached to the disc. On the abactinal surface, there is a large clear patch of thin uncalcified tissue between the base of the arms and the disc, with, at most, one or two small carinal plates between the arm and the disc. In contrast, the enlarged interbranchial superomarginals form, together with the heavy calcareous interbranchial septa, six very strong and rigid areas around the periphery of the disc. The superomarginals are generally four-lobed and imbricate in straight (not zigzag) series. The upper lobe is usually somewhat reduced, while the lower lobe is greatly elongate, overlapping the corresponding inferomarginal plate. The small disc has a dorsum of thin tissue and a circlet of elongate primary plates, with a few unattached elongate plates in the center. Each plate bears a few short, thorny, aciculate spines, and the madreporite, borne on one of the interradial primaries, is of moderate size, covered with deep coarse gyri and bearing around its periphery a circlet of spines. Elsewhere the disc is covered with large, straight, unguiculate pedicellariae. The surface of the arms is completely covered with small crossed pedicellariae. The small carinal plates are more or less irregular, and there are two series of meshes on either side of the carinal row. The adambulacral plates bear a single (occasionally two) long, ridged, aciculate spine, and the inferomarginal plates bear a similar, somewhat shorter spine; above the inferomarginals, the superomarginals, dorsolaterals, and carinals may bear a single very much shorter spine, or no spine. Straight unguiculate pedicellariae are abundant on the actinal disc interradial, and also occur between the proximal adambulacral plates and the inferomarginals. A few smaller pedicellariae of this type occur within the groove. The long, narrow mouth plates bear two long slender divergent spines on the side of the straight bare apex,

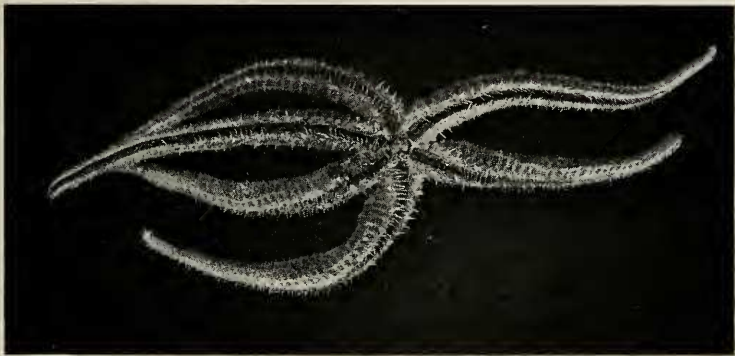
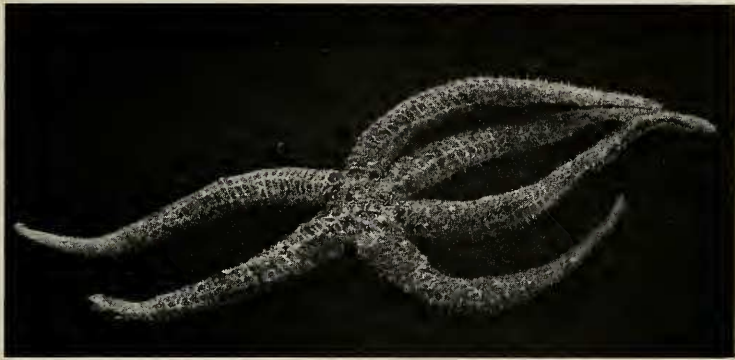


FIG. 1. *Ampheraster alaminos*, holotype. Actual size 124 mm. Abactinal, upper. Actinal, lower.

and two or three similar suboral spines, one behind the other. The mouth plates also bear a number of small unguiculate pedicellariae.

Remarks: Six arms, rather than five, distinguish *A. alaminos* from all other species in the genus. *A. alaminos* differs from *A. atactus* and *A. distichopus* in having the adambulacral plates monacanthid throughout. It differs from *A. marianus* in having two series of meshes on either side of the carinal plates, rather than four. From *A. chiropus* it differs in having the tubefeet biserial throughout, and from *A. hyperoncus* in having the superomarginals generally four-lobed and imbricating in straight, rather than zigzag series.

All of the specimens of this species are from depths of 1450 to 1750 fathoms in the north central Gulf of Mexico, where the bottom is mainly foraminiferal.

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